

in August to fertilize artificially, but failed each time, chiefly, I believe, on account of the immaturity of the spermatozoa.

In the stomach of *Depastrum* I have noted the remains of a small crustacean (probably a Copepod). When kept in confinement unattached to a stone they sometimes void a floccular mass, along with one or two phacellæ, which looks like a portion of the stomach epithelium. The tentacles also are apt to slough off. It is very difficult to kill them well expanded, but I have obtained good results by carefully narcotizing with 30 % alcohol.

VI.—On a new Genus of Spiders from Bounty Island, with Remarks on a Species from New Zealand. By H. R. HOGG, M.A., F.Z.S.

PROFESSOR CHARLES CHILTON, of Canterbury College, Christchurch, New Zealand, kindly sent me recently some spiders obtained by Mr. L. Cockayne from the islands lying to the east and south-east of the New Zealand coast. Among these were some specimens found on the guano deposits of Bounty Island, situated about 9 degrees east of Dunedin (170° 30' East longitude), between the better-known Antipodes and Chatham Islands.

The spiders belong to the family Agalenidæ, and the well-developed colulus, front spinnerets close together, inner margin of the falx-sheath toothed and sloping, with fringe of incurved bristles on the outer, the upright maxillæ, and square lip show them to belong to M. Simon's group *Cybææ*. Allied to the genus *Emmenomma*, Sim.*; this species differs too materially to be included therein, so that I have formed a new genus to receive it.

PACIFICANA, gen. nov.

Differs from *Emmenomma* in having the cephalic part of the cephalothorax convex and wide in front instead of not convex and slightly attenuate. The thoracic fovea quite short and shallow instead of long and deep. Rear row of eyes so recurved as to form an area as long as broad instead of about one half as long as broad. Two teeth on inferior

* The single species for which M. Simon formed his genus *Emmenomma* was found on the islands adjacent to Cape Horn (about 67° W. long.). The two localities are therefore separated by over 120 degrees of longitude.

margin of falx-sheath instead of three; three on superior margin. About five pectinations on superior tarsal claws instead of about nine.

The trochanters of all four pairs of legs are slightly but clearly hollowed on the underside. This, with the mandibular fringe and shape of lip and maxillæ, breaks down the last quotable distinction between the Agalenidæ, Pisauridæ, and Lycosidæ.

Pacificana Cockayni, sp. n.

The *colour* of the cephalothorax is dark brown, the cephalic part being bounded by a pale yellow marginal stripe. A similar pale yellow area extends round the thoracic part almost to the margin, where there is again a narrow streak of brown. The mandibles are dark brown. Lip and maxillæ paler brown, yellow on the outer edges of the latter. Sternum pale brown on each side, with a longitudinal central yellow streak. The legs and palpi are yellow, with brown rings, one near the anterior end of the femur, one on the patella, two on the tibia, two on the metatarsus, one at the anterior end of the tarsus. In the front pair the whole of the tarsus and metatarsus is brown. The abdomen on the upperside has a series of transverse scolloped stripes yellow and black alternately. The underside is greyish yellow.

The shape of the *cephalothorax* is a long oval, truncate at the slightly narrowed anterior end. The cephalic part is considerably raised above the thoracic; a short, shallow, longitudinal fovea extends from behind the cephalic part to, but not down, the rear slope.

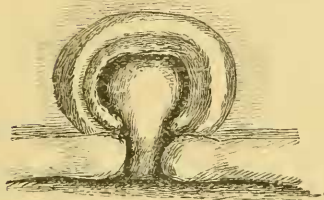
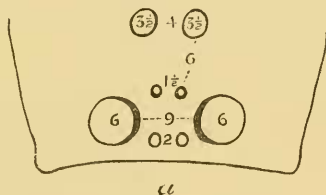
The pattern of the *eyes* is quite unique. The front laterals are large, one and a half diameters apart, and one third of their diameter from the margin of the clypeus. Four small intermediate eyes one fourth of the diameter of the above are situated between them at the corners of a trapezium, the rear pair, their diameter apart, slightly above the line joining the upper edges of the laterals; the lower pair, rather farther apart, are below the line touching the lower part of the laterals. The lateral eyes of the rear row, rather more than their diameter apart, are about three fifths the diameter of the front laterals and the diameter of the latter away from their own median. The small front median eyes are their diameter from the margin of the clypeus.

The *mandibles* are nearly twice as long as the front patellæ, much kneed at the base, and taper to the anterior end, the fangs being rather long, slightly curved, smooth for the first half and striated longitudinally the second. The

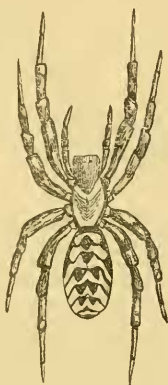
falx-sheath is sloping and has two teeth on the inner margin near the upper end. There are three teeth below the fringe of bristles on the outer margin, the middle one being the largest.

The *maxillæ* are upright, convex, rounded in front, and broadest near the anterior end. The *lip* longer than broad, on a narrowed base, is rounded at the sides and broadly truncate in front.

Fig. 1.



c



b

Pacificana Cockayni.

a, eyes, $\times 10$; b, spider, nat. size; c, epigyne, $\times 10$.

The *sternum* is nearly twice as long as broad, truncate in front, and running to a point posteriorly.

The *abdomen* is oval, sparsely covered with short fine hairs.

The *spinnerets* two-jointed, tapering, the second joint quite short. The inferior pair close together, the colulus broad and long.

The *legs* are moderately stout, the metatarsal and tarsal joints tapering to a rather fine point. The superior tarsal claws have about five pectinations at the basal end only, the

inferior claw being smooth. At the anterior end of the metatarsi is a ring of short incurved spines and four pairs of spines on the underside of the front two pairs. The tarsi are without spines.

There is a longitudinal seam along the front side of the coxæ, and the chitinous margin of the trochanters is slightly hollowed on the underside, the species in this respect, as in the mandibular fringe, approaching the *Lycosidæ*.

The measurements (♀) in millimetres are as follows:—

	Long.	Broad.
Cephalothorax	$9\frac{1}{2}$	$3\frac{1}{2}$ in front.
Abdomen	12	5
Mandibles	4	$6\frac{1}{2}$

		Coxæ.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs	1.	3	7	8	7	=	25
	2.	$2\frac{1}{2}$	$6\frac{1}{2}$	$6\frac{1}{2}$	6	=	$21\frac{1}{2}$
	3.	2	$6\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	=	$19\frac{1}{2}$
	4.	$2\frac{1}{2}$	7	8	7	=	$24\frac{1}{2}$
Palpi		$2\frac{1}{2}$	$3\frac{1}{4}$	$3\frac{1}{4}$	3	=	12

There are one male (unfortunately wanting a moult) and four females.

From Wanganui, North Island of New Zealand, Mr. W. Gray was so good as to send me two small pieces of moss-covered bark, each a few inches square. On my first examination I could see no reason of adequate interest to account for their having been sent so long a journey by post. It was only after careful search that I found the lids of no less than five nests of a little *Migas* spider, apparently that first described by L. Koch, *M. paradoxus*.

The doors of the nests fitted so closely, and, although composed of woven felt, so exactly resembled the adjoining bark and lichen as to be quite invisible on a casual inspection. The occupant of one nest had come out and was unhappily crushed, but the other four nests contained live females, one in each. The nests are little silken sacs wedged between interstices of the bark, about $\frac{3}{4}$ inch in depth and $\frac{3}{8}$ inch across the opening.

In the collection made by the 'Challenger' expedition, recently returned to the British Museum (Natural History) after a prolonged absence, is another specimen from Wellington, evidently the same.

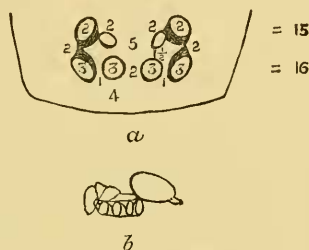
The legs in all the specimens are rather longer in proportion to the cephalothorax than the measurements given by L. Koch, but they agree closely otherwise with his description of his type specimen from Auckland, and I have no reason to doubt their being the same, more especially as the legs are normally carried closely bent up and are not easy to measure.

As in all this group, the tarsi and metatarsi of the front two pairs of legs are flattened and abnormally short. The metatarsi are furnished with a double row of stout curved spines on the underside (in my paper, Proc. Zool. Soc. Lond. 1901, ii. p. 229, by a misprint this character is ascribed to metatarsus iv.).

The superior tarsal claws have one long pectination, with a few uneven rugations on either side.

The front row of eyes is straight, the rear row is slightly recurved.

Fig. 2.



Migas paradoxus, L. Koch.

a, eyes, $\times 10$; *b*, profile, nat. size.

The cephalothorax and mandibles are yellow-brown; sternum, lip, and maxillæ yellow; abdomen black and rather rugose above, dark yellowish grey below. The space in front of the genital aperture and spinnerets yellow.

The strongly recurved cephalic fovea and rather profuse bespining of lip and maxillæ (in female) are marked features.

I append measurements (in mm.) of one of Mr. Gray's specimens, apparently adult, and of the still larger 'Challenger' specimen:—

Specimen from nest (W. Gray).

	Long.	Broad.
Cephalothorax....	$3\frac{1}{2}$	$2\frac{1}{2}$ in front.
		$3\frac{1}{4}$
Abdomen.....	4	3
Mandibles	$\frac{1}{2}$ hor ^r .	2 vert ^r .

		Coxæ.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs.....	1.	$1\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{4}$	=	$10\frac{3}{4}$
	2.	$1\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	$2\frac{1}{4}$	=	10
	3.	1	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{4}$	=	$8\frac{1}{4}$
	4.	$1\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$	=	11
Palpi		$1\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{3}{4}$	1	=	$6\frac{3}{4}$

'Challenger' Expedition specimen.

	Long.	Broad.
Cephalothorax....	5	$3\frac{1}{2}$ in front.
		$4\frac{1}{2}$
Abdomen.....	6	$4\frac{1}{2}$
Mandibles	$\frac{3}{4}$ hor ^y .	$3\frac{1}{2}$ vert ^y .

		Coxæ.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs.....	1.	2	5	$4\frac{1}{2}$	3	=	$14\frac{1}{2}$
	2.	$1\frac{3}{4}$	$4\frac{1}{2}$	4	$2\frac{1}{2}$	=	$12\frac{3}{4}$
	3.	$1\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	3	=	$11\frac{1}{2}$
	4.	2	$4\frac{1}{2}$	$4\frac{1}{2}$	$3\frac{1}{2}$	=	$14\frac{1}{2}$
Palpi		$1\frac{3}{4}$	3	$2\frac{1}{2}$	$1\frac{1}{2}$	=	$8\frac{3}{4}$

Migas distinctus, Cambr., from the South Island, described as having a pattern of yellow spots on the back and having more widely separated eyes, will no doubt be distinct from the above; but Mr. Goyen's *Migas Sandageri*, from Moko-hinou Islands, near Auckland, now that we know he means recurved by bent forward, would seem from his description to agree exactly with *M. paradoxus* of L. Koch. Mr. Goyen found the nests of *M. distinctus* in clay-banks; those of *M. paradoxus* and *M. Sandageri* are on the trunks of trees. It is interesting to note that M. Simon has found the nests of the allied South-African *Moggridgea* to be built both in the ground and on bark.

VII.—*On new Forms of Anomalurus and Sciurus from Tropical Africa.* By HAROLD SCHWANN.

AN examination of some of the more recent African accessions to the British Museum collection which I have been enabled to make with Mr. Thomas's permission shows that the following forms require description.

Anomalurus Beecrofti argenteus, subsp. n.

General colour above silvery grey, more or less suffused with yellowish towards the middle line; basal portion of the